

## I CLAIM:

1. An improved central speed control mechanism for remote control cars, comprising:
  - a housing and a cover, which are connectable to each other and are respectively provided with corresponding grooves on the inner wall; tooth rim is provided on the rim of the cover; a pivot, which is provided with a helical gear at the end, passes through both of the housing and the cover; and
  - a gear set, which includes a positioning block, a plurality of bevel gears and axles; axle holes are equally provided on the periphery of the positioning block for the axles to engage and position therein; a central hole with a cone surface is provided in the bevel gear, the front end of the axle is provided with a positioning pillar which forms a cone surface by degree, whereas the rear end of the axle is in the form of the same shape as the groove on the inner wall of the housing for engagement purposes; when inserting the axle into the central hole of the bevel gear along the cone surface, the axle can be assembled to the periphery of the positioning block;

after assembling the gear set into the housing, and connecting the cover with the housing as a whole, helical gears (30, 31) at the end of each axle will engage with the bevel gears (42);

when the speed controller rotates, the cone surface of the central hole of each bevel gear will match with the cone surface of the axle; and under the centrifugal force generated by the bevel gears (42) of the gear set, each bevel gear would be drawn back to form a cone-engagement stopping force along the axis direction of the axle, thereby generating a damping force.

- 5 2. The improved central speed control mechanism for remote control cars according to Claim 1, wherein expanding stairs are provided in the end the central hole of each bevel gear (42) of the gear set for receiving an O-ring therein, such that when the bevel gears (42) are drawn back due to the centrifugal force, their press on the O-ring generates a flexibility restoring force.
- 10 3. The improved central speed control mechanism for remote control cars according to Claim 1, wherein a washer is further provided in addition to the O-ring.
- 15 4. The improved central speed control mechanism for remote control cars according to Claim 1, wherein shaft sections of equal diameter are

provided in the front of the cone of the middle axles to prevent the engaging cones from getting stuck.

5. The improved central speed control mechanism for remote control cars according to Claim 1, wherein shaft sections of equal diameter are provided in the rear of the cone of the middle axles to prevent the engaging cones from getting stuck.
6. The improved central speed control mechanism for remote control cars according to Claim 1, wherein as the shaft sections of equal diameter are provided in the front of the cone of the middle axles, a space is formed in-between the cone surface of the central hole of the bevel gear and the cone surface of the middle axle when connecting with each other, thereby preventing the engaging cones from getting stuck.
10. The improved central speed control mechanism for remote control cars according to Claim 1, wherein as the shaft sections of equal diameter are provided in the rear of the cone of the middle axles, a small space is formed in-between the cone surface of the vertical wall of the shaft section and the cone surface of the middle axle, thereby preventing the engaging cones from getting stuck.
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8. The improved central speed control mechanism for remote control cars according to Claim 1, wherein the gear set is composed of a positioning block, four bevel gears, and four axles.
- 5        9. The improved central speed control mechanism for remote control cars according to Claim 1, wherein the inner wall of the housing is provided with four grooves.
- 10      10. The improved central speed control mechanism for remote control cars according to Claim 1, wherein the end of the axle is in form of square cap, such that when it is engaged inside of the grooves in the inner wall of the housing, the speed control mechanism will stop rotating.